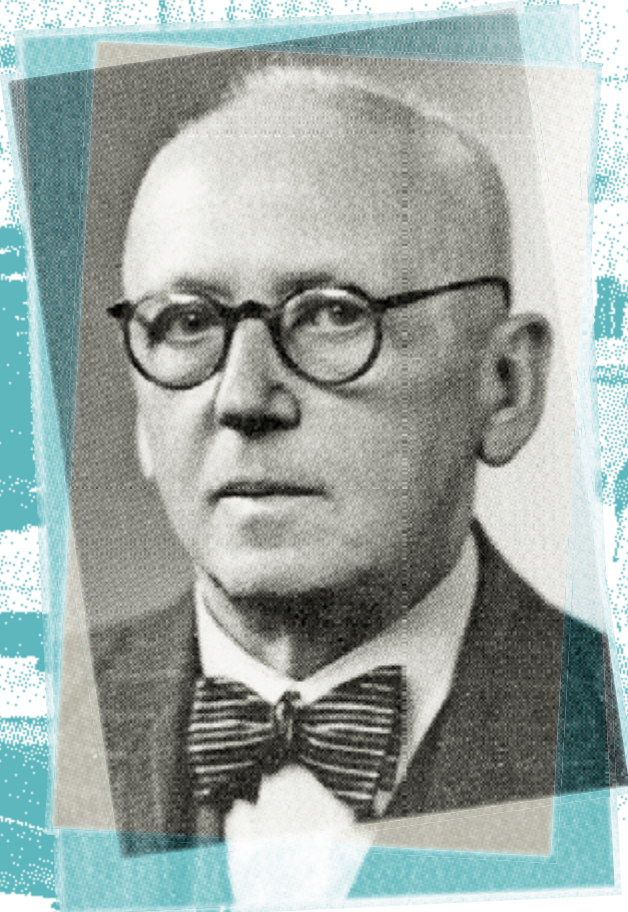


SIEMENS

Ingenuity for life



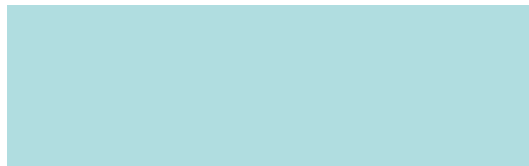
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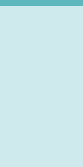
Hans **Hertlein**

Hans Hertlein contributed to the visible success of Siemens through his factory and administrative buildings as well as settlements and social housing. He joined the Siemens Construction Department as an architect in 1912, and soon developed his own characteristic modernist style that made him the top Siemens architect for many years.

The brochure is the sixth volume in the **LIFELINES** series, which is dedicated to introducing the men and women who have done the most to shape the history and development of Siemens. This group includes businessmen who led the company, members of the Managing Board, engineers, inventors and creative thinkers.

Hans Hertlein





Hans

Hertlein

July 2, 1881 – June 14, 1963

L I F E L I N E S





The Siemens architect –
Hans Hertlein, 1927

Introduction

The transition from the 19th to the 20th century was a period of upheaval, because the Industrial Revolution had brought dramatic consequences. In Central Europe and the U.S., new technologies, processes, and social groups were shaping people's day-to-day lives as well as their perceptions of the future. During the 1880s, Germany embarked on a path toward rapid industrialization and solidified its position on the world market in the new disciplines of electrical engineering and chemistry. During these same years, Berlin became a metropolis; then, thanks to Siemens and AEG (Allgemeine Elektrizitäts-Gesellschaft), it became the "electropolis," the productive core and urban laboratory of the German electrical engineering industry.¹

Politically, economically, and even culturally, the balance of powers was shifting and industry and civil society were assuming the role of "primary clients" for new architects and engineers.² Industry in particular offered young architects new career opportunities and paved the way for modernism – a modernism that began with industrial architecture and then spread to other types of construction.

One of these young architects was Hans Christoph Hertlein. Hertlein was already drawn to the big city and its new building projects as a young man. In 1912, at the age of 31, he left his native Bavaria to enter the Siemens Construction Department. He initially moved from Munich to Berlin on a leave of absence from his then employer, but the new projects and prospects that Carl Friedrich von Siemens opened up for him in the large company soon convinced him to make the capital his primary residence. Factory and administrative buildings as well as settlements and social housing offered Hertlein a diverse range of projects that gave him a glimpse into almost all areas of the electrical engineering company and helped him to establish relevant contacts.

So great was the number of buildings that he implemented in Germany and abroad over a period of more than 40 years that it would be beyond the scope of this volume to mention them all. A few milestones will be sufficient to mark the most important events in the life of a man whose illustrious career in and through the company literally contributed to the visible success of Siemens.

Whereas technical masterpieces from that era have long made their way into the appropriate collections and museums, a majority of the buildings built by Hertlein, all suitably modernized, are still in use. In accordance with Hertlein's wishes, they continue to contribute to the public's awareness and perception of the company and to give Siemens employees a point of identification with the company and its multifaceted history.

“Create, artist! Do not talk!” – origins and influences

Little is known about Hans Hertlein’s childhood, youth, and student days. The architect was remarkably reserved when it came to his private life. Like many architects, Hertlein took Goethe’s statement, “Create, artist! Do not talk!” and made it his own. The work itself would provide information on the person who was absorbed in it and hid behind it. He never provided more information than was absolutely necessary, neither in his personnel records nor in the résumés he was obliged to submit to various professional associations. It wasn’t until the late 1950s that Hertlein finally broke the silence and self-published some 100 pages of memoir. Even then, the childless architect avoided anything private and concentrated instead on his architectural works, focusing on Berlin’s Siemensstadt and lending its development an uncharacteristically personal touch with his *recollections from the time of its creation*.³

Documents belonging to the Siemens Historical Institute and Hertlein’s private papers present the picture of a talented architect who grew into the company and his tasks over a period of decades and developed an unmistakable architectural expression thanks to the support and artistic freedom that he was granted. Hertlein emerged as a cautious and diplomatic figure who enjoyed the full confidence of Carl Friedrich von Siemens and was characterized by Hermann von Siemens as a “pleasant, even-tempered fellow.”⁴ Despite the modernism of his designs, Hertlein came across as conservative in the best sense of the word. He

From 1897 until the end of the Second World War, Siemensstadt is the company’s main production and administrative site.

strived to preserve past achievements and safeguard successes. In an age of transition, he sought stability; continuity would see him through the political, social, and economic ruptures and crises that marked his generation.

Hans Christoph Hertlein was born in Regensburg on July 2, 1881. His father, Adolf, came from a merchant family and worked as a councilor with the Higher Regional Court. His mother, Rosa, daughter of the clerk Josef Bauer, ran the household and took care of the children. At some point the family moved and Hertlein changed schools; according to his personnel records, he began his education at the Humanistisches Gymnasium Regensburg and graduated from the Humanistisches Gymnasium Augsburg with a university entrance certificate in 1900. Without entering military service, the secondary-school graduate began studying architecture at the Technical University of Munich. His particular interest in his chosen field of study was evident from the semesters he spent at the universities in Dresden and Berlin. The student went to a great deal of trouble and expense to move, look for rooms, and find his way around the new cities and universities in order to expose himself to new schools of thought and working methods.

What attracted him to Munich was the famous Friedrich von Thiersch and his historic designs. In Dresden, it was the young Fritz Schumacher, who had himself studied with von Thiersch and had devoted himself to Reform Architecture. Whereas von Thiersch was a master at applying his well-founded knowledge of architectural history to new construction projects, the Reformers found the models for their designs not in advanced civilizations but in local traditions, simple buildings, plain roofs, and craftsman-like elements. Another artist and architect whose approach was consistent with this school was Richard Riemerschmid,

1916 Friedrich von Thiersch is an important influence on the Technical University of Munich and its students. The university tower based on his design serves as a landmark of the institution.



The Schaltwerk high-rise building as an ideal of the new age – Fritz Schumacher as an influential teacher

whom Hertlein cited as his third role model. Like his fellow Reformers, Riemerschmid favored simple, purpose-built architecture and construction using compatible materials – in other words, an “honesty” that the historic designs of his predominantly older colleagues lacked.

1849 Reform Architecture is part of an international development. In England, John Ruskin advocates for a new architecture.

Of all Hertlein's teachers, Schumacher made the greatest and most lasting impression. Hertlein kept track of Schumacher and his work even after he had moved away from Dresden in 1909 to pursue his vocation as building director for the Hanseatic City of Hamburg. Hertlein's future work would always show certain similarities to that of his mentor. And the high regard was mutual: Schumacher never lost touch with his former student. On the cover of his definitive work on architectural history published in 1935, *Strömungen in Deutscher Baukunst seit 1800*, Schumacher featured two buildings that represented the start and end points of German architectural development. As the successful beginning he selected the classicist Befreiungshalle (Hall of Liberation) in Kelheim, and as the grand finale he used Hertlein's Schaltwerk high-rise building in Berlin's Siemensstadt – for Hertlein, a tremendous honor conferred by the grand master of the German architectural scene. In his book, Schumacher summed up the key to Hertlein's distinguished position within his discipline in a single sentence:

*"Seldom is an architect granted the opportunity to build an entire industrial city with a unified spirit as Hans Hertlein did with ever greater simplicity and grandeur in 'Siemensstadt'."*⁵

But all this was still far in the future. Hertlein's stays in Dresden and Berlin broadened his vision and gave him new perspectives on his future profession. After completing his studies in Munich in 1905, he took the first step toward a practical career.

His desire for security led him to the municipal building authorities, which combined a high degree of bureaucracy and a pronounced process culture with a large and diverse range of projects that didn't have to win first prize in architectural competitions.

¹⁸⁴² The Befreiungshalle Kelheim on Michelsberg hill on the Danube commemorates the Wars of Liberation against Napoleon and the political realignment of Europe.

The departments were run by politically influential planning commissioners next to whom the busy architects were practically invisible. Although Hertlein may have dreamed of occupying one of the few top positions, it would have required an assertiveness that hardly seemed compatible with his cautious nature.

1909 Fritz Schumacher serves as Building Director of Hamburg until 1933. His brick buildings evolve from traditional to modern forms.

The Dresden years – designing for the city

After graduating, Hertlein quickly found employment at the Nuremberg municipal development authority. He didn't stay there long, however; the following year he returned to Dresden, the center of the Reform movement, where the "Dritte Deutsche Kunstgewerbeausstellung" (Third German Applied Arts Exhibition) would open in May 1906. Fritz Schumacher was once more in charge. He prepared the exhibition in partnership with the artists' association *Die Zunft* (The Guild), which had formed around the newly appointed municipal building surveyor, Hans Erlwein.

Hertlein successfully applied to Erlwein for a position at the Dresden Public Works Office for the years 1906/07. Unfortunately, there is no record of which projects the young architect worked on. What is certain, however, is that he gained an overview of the comprehensive construction program which included not only standard construction projects such as schools, hospitals, administrative buildings, and municipal residential buildings, but also involved a number of industrial and commercial buildings. During Hertlein's years in Dresden, construction began on the large stockyard and slaughterhouse in Friedrichstadt and plans were developed for new buildings and conversions at the Reick gasworks and for the Hosterwitz waterworks.⁶ Although the stockyard and slaughterhouse complex with its approximately 80 buildings was one of the largest projects at that time, the construction of a new gasometer in Reick was one of the most prestigious. Hertlein was not only able to observe the creation of Erlwein's

¹⁹⁰⁴ Hans Erlwein is 32 years old when he's appointed municipal building surveyor. In 1910, he's offered an honorary professorship in Dresden.



Construction of a gasometer – a prestigious project for a young architect

designs and the organization of tasks and employees at the municipal development authority, but he also saw how the young municipal building surveyor cleverly inserted and communicated his Reform concepts in his policies and administration.

In 1908, Hertlein took a new position at the Munich municipal development authority. To celebrate its 750th anniversary, the city organized an applied arts exhibition and employed Hertlein as construction supervisor for the temporary buildings in Theresienhöhe. A small exhibition city was built next to the Bavaria statue

1908 The Munich Applied Arts Exhibition is a tremendous success, attracting some three million visitors.

whose magnificent buildings would captivate visitors for a limited time. The design for the main restaurant provided by Emanuel von Seidl had none of the simplicity or frugality that Hertlein appreciated in the works of Schumacher and Erlwein.

Armed with extensive practical knowledge and a wide range of experience from his time in Nuremberg, Dresden, and Munich, Hans Hertlein passed the state examination in 1909.

Industrial architecture – an exciting challenge for a “building-hungry architect”

That same year, the newly qualified government master builder joined the Directorate General of the Bavarian Mining, Smelting, and Salt Works, which was associated with the ministry of finance. He was assigned the Amberg smelting works in the Upper Palatinate. Exploratory drilling had revealed that the smelting works, in operation since 1884, had access to additional ore reserves, making an expansion of the plant worthwhile. The Directorate General decided to submit the expansion to the political decision-making process, and with this in mind, drew up plans for an especially comprehensive development. In the past, Hertlein learned, the Center Party had radically curtailed projects in the Landtag. The Directorate General’s logical response was to adapt the plans to take into account the “usual budget cuts” by doubling the costs of the building program; after the debates and budget cuts were over, they would then be allocated the amount they actually needed. This time, however, their calculations were wrong. The Center Party, having been accused of hindering the industrial development of Bavaria, dispensed with the usual objections and approved the Amberg smelting works for the entire sum. In his memoirs, Hertlein well recalled the Landtag’s surprisingly

1909 The Directorate General of the Mining, Smelting, and Salt Works manages and develops the national mines.

generous decision and the subsequent challenge of having to spend the full budget:

“For this project, I energetically supported the authorities and helped with the building as much as possible. It was a rare and certainly a beautiful opportunity for a young, building-hungry architect.”⁷

New development opportunities – private projects and the move to Berlin

Hans Hertlein worked for the Directorate General for two years before transferring to the ministry of Upper Bavaria. Evidently, the constant subjection to directives didn't suit him and offered too few development opportunities. Immediately after joining the ministry, he took a leave of absence and used this comfortable position as a launching pad for exploring an independent career. Presumably it was his brother Friedrich in Nuremberg who procured projects for him in Franconia with Elektrizitäts-Aktiengesellschaft vorm. Schuckert & Co. (EAG). Although nothing is known about Friedrich's life or career, it's likely that he was working at EAG or Siemens-Schuckertwerke at that time. His personal contact with Carl Friedrich von Siemens at least proves that he was familiar with and active in the world of the two electrical engineering companies.⁸

In 1912, Hertlein had an opportunity to submit a design to a “small, limited competition for Grosskraftwerk Franken.”⁹ The competition designs were presented to Carl Friedrich von Siemens in Nuremberg, who immediately took an interest in Hertlein's work. He was on the lookout for a new design architect for the Siemens Construction Department and he liked what he saw.

1903 As a result of the electricity crisis, EAG merges with Siemens. Power engineering business is now concentrated in Siemens-Schuckertwerke.



The patron – Carl Friedrich
von Siemens, 1912

For Carl Friedrich, who had been Chairman of the Managing Board at Siemens-Schuckertwerke since 1912, restructuring the corporate architectural policy was a personal matter. For too long the company had been trailing behind Allgemeine Elektrizitäts-Gesellschaft (AEG), which had been garnering all the attention in this area since the appointment of Peter Behrens as its “artistic advisor.”

At that time, the Siemens Construction Department was managed by Karl Janisch. As a machine builder and electrical engineer,

1907 The German Werkbund is founded in Munich.
Peter Behrens is one of its most influential and successful members.

Janisch was quickly able to master all the operational, economic, and structural aspects. When it came to questions of design, however, he resorted to largely unknown Berlin architects whose designs were not especially appealing to Carl Friedrich von Siemens.

They briefly entertained the idea of following AEG's example and commissioning the famous Munich architect Gabriel von Seidl to build the new main administrative building. But on the way to Munich to negotiate the contract, Carl Friedrich suddenly broke off the journey with Janisch and returned to Berlin.¹⁰ Hiring a freelance architect of that stature was contrary to the self-image of the company, which needed to be in full control of the renewal of its architectural representation. The designs had to be produced in-house and had to be in perfect alignment with the requirements of the administration and the factories.

Hertlein seemed to be the perfect candidate for the job and immediately went to Berlin to meet with Carl Friedrich von Siemens. For such an opportunity, the 30-year-old was willing to give up the professional independence he had been seeking when he took his leave of absence from the ministry. Once again, he was attracted by a large employer that – like the municipal development authorities and the ministry – promised him a high degree of security.

After the meeting in Berlin, Hertlein was convinced that he would be well placed with Siemens and could count on being both challenged and encouraged: "At our first meeting, which was extremely informal and took place at Askanischer Platz, Carl Friedrich von Siemens presented such a winning and open personality that from that moment on, he had my full support. I also had the impression that he approved of me."¹¹

Nevertheless, Hertlein remained cautious and kept his post at the ministry. On July 22, 1912, he wrote to Carl Friedrich von

1906 Gabriel von Seidl's competition design for the German Museum of Masterpieces of Science and Technology in Munich wins first prize.

Siemens that he'd extended his leave and hoped to be available by January 1, 1914. "My local, private work should be partially done by September 1, and I could also relinquish some of it," wrote Hertlein. "The only reason I would have to return to Ansbach from Berlin would be for an office and residential building that I'm working on for E.A.G. vormals Schuckert und Co. in Ansbach and which should be completed by the end of October."¹²

¹⁹¹² The office of Carl Friedrich von Siemens is on Askanischer Platz. With the move to Siemensstadt, the administrative building is put up for sale.

The move to Siemens – joining Karl Janisch's construction department

Subsequent to the meeting between Hans Hertlein and Carl Friedrich von Siemens at Askanischer Platz, an important decision was made that proved disappointing for the young architect when he arrived in Berlin on September 4, 1912. He had assumed that his first project would be to design the main administrative building, but instead he was assigned to factory planning and construction supervision for the large project. Siemens and Janisch once more resorted to their usual practice and commissioned one of Janisch's freelance architects for the design. Friedrich Blume's first design for the headquarters complex had already been rejected and he was asked to revise it. Carl Friedrich von Siemens approved the revised plans.

Hertlein had to insist that he at least be allowed to design the interior fixtures. His initially controversial decision to paint the doors a "medium blue" turned out to be a lasting success. "That blue, which soon came to be known as 'Siemens blue,' was also the color of our trucks [...] and even served as a sort of advertisement on the streets that was especially recognizable from a distance when painted with the contrasting yellow company logo."¹³

This early success may have been the reason that Hertlein was later entrusted with the company's publicity, product design, and artistic design of buildings and meeting rooms.¹⁴ Up until 1935, when Hans Domizlaff was hired as the company's freelance advertising consultant, all decisions concerning Siemens advertising and the acquisition of art were reviewed by the architect.

1939 Hans Domizlaff's book *Die Gewinnung des öffentlichen Vertrauens. Lehrbuch der Markentechnik*, is published and becomes a brand-promotion best seller.



The Siemens Construction Department –
Hans Hertlein (seated, second from left)
surrounded by his colleagues

Since the decision had been made to base the restructuring of Siemens' building policy on reforms rather than revolution, Hertlein initially had to prove himself in the construction department. In addition to assisting in the design of the main administrative building, he also worked on his own projects, which served to remove him somewhat from the department's everyday operation, including the "Antonienheim" – the company's recreational facility on the Baltic Sea – and a Siemens representative office in the center of Berlin.

A group photo from around 1913 shows the department employees beside the construction barracks on Motardstrasse. In the

1914 By March of this year, around 3,000 employees have moved into the main administrative building. Over the years, it will be expanded several times.

photo, Hertlein already occupies a place of honor, seated to the right of the powerfully built Janisch and surrounded by 42 men and three women. Although Hertlein still harbored ambitions to head the department, for now he had to come to terms with a supervisor who was only ten years his senior. The prospect of taking over Janisch's position, which Hertlein was "already quietly coveting," became more immediate with Janisch's engagement with Cyanid-Gesellschaft and its subsidiaries, Stickstoffwerke Spandau and Bayerische Stickstoffwerke, in which Siemens held a participating interest.¹⁵ Hertlein was soon enjoying more freedom, but it wasn't until April 1915 and the change to a war economy that Janisch joined the Management Board of Bayerische Stickstoffwerke and left the way clear for Hertlein to assume the role he had been imagining for himself ever since his first meeting with Carl Friedrich von Siemens.

¹⁹¹⁵ In Wittenberg-Piesteritz, Karl Janisch supervises plans for a nitrogen plant and the construction of a residential complex for employees.

Arrived – Hans Hertlein as head of the construction department

Two and a half years in Janisch's construction department provided Hans Hertlein with continuity and gave him the time he needed to come to grips with his new tasks. The company's activities, particularly the construction of factories, differed from conventional architecture. The construction department was in regular contact with plant managers and engineers who participated in the development of the functional layout and also helped clarify production processes and translate them into an appropriate rooms program. In addition, routine cooperation with in-house structural engineers, civil engineers, mechanical engineers, and, last but not least, the finance department, was an organizational challenge that Hertlein would first need to master.

Not surprisingly, there were sometimes bitter arguments among the experts as to who was in charge of industrial architecture: the architects or the engineers. In particular, the conflict between Peter Behrens and the structural engineer Karl Bernhard around the planning of AEG's Berlin turbine factory stirred up controversy and attracted a great deal of attention. An interdisciplinary construction department like the one at Siemens, which also came to be positively referred to as a "work team," was a productive way to combine the expertise of architects and engineers on a lasting and reliable basis.

Hertlein's time with Janisch also gave him an opportunity to assess the strengths and weaknesses of his colleagues. He would have to work with them to develop the company's new

1909 AEG's turbine factory, which Karl Bernhard helped design, is already an internationally acclaimed masterpiece of industrial architecture in the year of its completion.



"Gothically clad" – Hertlein criticized the Nonnendamm power plant in Berlin Siemensstadt as "disturbing"

architectural idiom, for which he was now seeking new directions. Since Schumacher and Erlwein had introduced him to Reform Architecture, he could no sooner acquire a taste for historicized façades than for camouflaging decor. In particular, he vehemently opposed the first generation of Siemens buildings built in 1898 and 1899 with façade designs by Fritz Gottlob.

What bothered him about the cable factory was "the displaced style with its sometimes Roman, sometimes Renaissance-like

1900 Fritz Gottlob publishes his book *Formenlehre der Norddeutschen Backsteingotik*. The Berlin architect specializes in church architecture.

forms.” He criticized the Nonnendamm power plant for its “old, gothically clad boiler house.”¹⁶ He found it “disturbing” when the “impression of a superficial and cursory approach” was detectable and even worse when there were “attempts to cover up all these imperfections by ‘beautifying’ the buildings with cheaply tacked-on devices” and “covering it with a strange garment.”

Although he was sure of the support of Carl Friedrich von Siemens, Hertlein had to proceed diplomatically to keep from violating loyalties toward his predecessor, the construction department employees, and the factory directors involved in design. As a counterbalance, he praised the Kleinbauwerk (small equipment plant) that the department had built between 1905 and 1912. Because the five-story structure with four courtyards was not on a public street, Janisch had decided for the first time not to hire outside architects and to dispense with additional ornaments on the façades.

What was for Janisch a pragmatic decision was praised by Hertlein and his many allies among the younger generation of architects as a characteristic expression of industrial architecture. The “honesty” in architecture that Hertlein came to know during his student days was especially critical when designing industrial buildings. The outward appearance should mirror the logic of production and translate into well-functioning ground plans, clear structural volumes, and material-compatible designs. The Kleinbauwerk, built solely out of bricks and articulated by piers, was Hertlein’s first reference point for the future design of the buildings in “Siemensstadt,” as the location had been officially called since early 1914.

Hertlein’s largest project during the war years was Wernerwerk II, which was started during Janisch’s time and was gradually fitted out and expanded by Hertlein. For this large building, the

1906 The Kleinbauwerk for the production of small electrical appliances enters the first construction phase. It is completed in 1912.



The new honesty – the façade of the Kleinbauwerk (small equipment plant) mirrors the logic of production

construction department followed the same policy that it had initiated with the Kleinbauwerk. For Hertlein, working on this building served as an ideal orientation phase after taking over the department: Assisted by a well-practiced team, he could continue the work while setting a new tone. The architectural self-assurance that the company and its new head architect had acquired was evident in the tall water and clock tower with its concealed, internal chimney that served as a landmark and the new center of Siemensstadt.

During that same period, plans were being developed for a new research laboratory building. Until then, the laboratories had been housed in a nondescript building that Carl Friedrich von

1922 The manufacturing plant Wernerwerk II for products such as measuring instruments and electromedical devices is commissioned.



Fruits of creativity – the Siemensstadt residential buildings, the Wernerwerk II clock tower, and the research laboratory

Siemens called the “doctor kennel.” The new construction, built after the war and later expanded, was a U-shaped structure around a glass-covered hall with a brick front that referenced the main administrative building visible nearby. For the first time, the research and development department – which was so fundamental to the company’s success – had a suitable presence and offered scientists ideal working conditions.

1914 Due to its sometimes dangerous experiments, the research laboratory is built next door to the company’s fire department.

Promising prospects – a change in leadership at Siemens

In April 1918, Arnold von Siemens died and was followed in October 1919 by his older brother Wilhelm. Leadership of the entire company now fell to Carl Friedrich, who was appointed Supervisory Board Chairman of Siemens & Halske and Siemens-Schuckertwerke at the end of 1919. For Hertlein, this generational shift offered promising prospects that would soon be realities.

While production resumed slowly in the years just after the war, the corporate social policy under Carl Friedrich von Siemens rapidly gained in importance. In 1919, in response to the demands of employee representatives who had become more powerful with the beginning of the Weimar Republic, Carl Friedrich established a sociopolitical department. Hertlein supported its activities with a long-term building program that included sport and recreational facilities as well as new churches for the Protestant and Catholic communities. A daytime recreation center for female employees was constructed in Siemensstadt and similar facilities were built outside Berlin in Koserow, Neuhof, and Belzig.

The construction of housing in Siemensstadt was the largest in a series of social construction projects that also helped to revive the economy and create jobs after the war.¹⁷ The Wohnungsgesellschaft Siemensstadt (Siemensstadt Housing Association) was founded in 1919 and was provided with designs by Hertlein. Between 1921 and 1933, three settlements were created at the site as well as a group of smaller buildings bordering the forest re-designed for the Wilhelm-von-Siemens-Park.

From 1919 After the First World War, companies recognize trade unions as legitimate employee representatives.



Gatehouse of the Siemensstadt settlement –
evidence of Reform Architecture from the 1920s

The Siemensstadt settlement, which was built in several phases starting in 1921, was a prime example of how strongly Hertlein was influenced by Reform Architecture and the Heimat movement from his student days. Whereas factories should appear realistic and functional, Hertlein believed that residential buildings required a separate expression. The lavishly planted grounds with their winding streets and small squares conveyed a “charming street scene.” The architect even paid special attention to auxiliary structures such as garages, trash can sheds, walls, and fences.¹⁸ As in a small garden city, he wanted to create a distinct community where a connection to the company and professional

1929 In Siemensstadt, construction begins on the “Ring Estate” under the direction of Martin Wagner and Hans Scharoun. It is independent of the company.

relationships between employees could be carried over into the private and family realm. In those years, Hertlein also invested in his own domestic bliss, independently of Siemens: In 1922, he married Gertrud Weiss and the couple moved into a residence built to his own specifications and implemented in a similarly charming design idiom in Berlin Neu-Westend.

Now that he was starting to experience visible success, Hertlein also wanted a working environment that reflected his position and his tasks. He thought that the one-story construction barracks inherited from Janisch radiated “a certain simplicity, almost sparseness.” The building was constantly being enlarged whenever the space became too tight.¹⁹ For almost three decades, starting in 1924, Hertlein tried repeatedly – although always unsuccessfully – to move his department.²⁰ Although he explained



Expression of simplicity – the construction barracks in Berlin-Siemensstadt

1922 Hans Hertlein's residence on Kastanienallee reflects the style of his settlement buildings in Siemensstadt.

the discrepancy between the architecturally cultivated corporate appearance and his “somewhat primitive” place of work, Carl Friedrich von Siemens simply gave him a pat on the back and said, “That’s just the way I like it!”²¹

On one hand, Carl Friedrich gave Hans Hertlein free rein wherever design was concerned. On the other hand, the architect had to be sensitive to what was actually expected of him. “For example – although we never discussed it – it was unthinkable to emphasize anything loud or garish,” recalled Hertlein when describing their collaboration in his memoirs. “There was no room for ostentation or for ‘trying to please,’ but only one natural goal: the inner clarity of the structure.”²² Hertlein’s surviving statements about Carl Friedrich von Siemens are enthusiastic and convey the deep gratitude that the architect felt toward his senior employer and patron.

In May 1925, Carl Friedrich once again stood by his decision to appoint Hertlein as leading design architect and defended him against in-house opposition: In 1921, after Carl Köttgen was appointed new Chairman of the Managing Board of Siemens-Schuckertwerke, the architect Wilhelm Dohme had begun to establish his own construction department for power plants and power distribution buildings. His department combined all the expertise necessary for the specific task. It developed routines for electrotechnical, mechanical, and structural requirements and then designed power plant projects for the national and global markets based on these routines. In 1924, Dohme openly questioned Hertlein’s design leadership and published a brochure in which he presented not only technical and organizational solutions, but also his own architectural concepts.²³ Carl Friedrich von Siemens wrote to Köttgen, making it absolutely clear that Hertlein had supreme authority in all matters relating to architecture and

¹⁹²¹ With its power plant construction department, Siemens follows the example of AEG, which was one of the first companies to enter the power plant and “venture” business.

ordering Dohme's brochure to be withdrawn. He also refused to tolerate any criticism of his architect:

*"Mr. Hertlein is directly responsible to management. Before his arrival, the company did not excel in this area, but through the work of Mr. Hertlein, the situation has greatly improved and we know that we're in the best of hands thanks to his supervisory work in this area."*²⁴

This illuminating document shows that Carl Friedrich von Siemens granted Hans Hertlein a high level of artistic autonomy. Ultimately, it was impossible to formulate precise guidelines when it came to architectural and structural matters. Nevertheless, it was important to ensure that Siemens-Schuckertwerke did not "publish highly controversial designs." The company should not become unnecessarily involved in the dispute between modernists, expressionists, and traditionalists. Despite Hertlein's freedom, he had to come down on the side of the prevailing opinion makers in matters of design.

Hertlein was now in charge of reviewing the designs from Dohme's department and the architect's position was secure. He was made a director by 1924 and in 1938 was promoted to General Agent of Siemens & Halske and Siemens-Schuckertwerke.

1932 Wilhelm Dohme leaves Siemens-Schuckertwerke after serving as the "Chairman of the Structural Engineering Office of the Central Departments."

Glory days of Siemensstadt – aiming for the New Objectivity

During the period immediately following the First World War, Siemens was reorganized and a course was set for economic recovery. The company invested in factories in central Germany where labor-intensive branches of production could operate more economically and pursued a policy of purchasing or building factories for preliminary products.

In the mid-1920s, the economic upswing finally took hold. Siemens & Halske's light-current business began to benefit as of 1924/25 and Siemens-Schuckertwerke's power engineering business as of 1926. Factory construction in Siemensstadt assumed a greater role in the construction department's portfolio and the number of employees grew by leaps and bounds. During the short period between September 1926 and June 1928, Hertlein's department increased from 77 employees to 113.²⁵

Blockwerk II, built by Siemens & Halske starting in 1924, was the first new, large factory in Siemensstadt since the end of the First World War. For the first time, Hertlein renounced the usual saddleback and mansard roofs. He placed the two top stories on the main block with setbacks and finished them with a flat roof. This made the rooms on the upper stories more usable than the dark, overheated production spaces under the sloping roofs. It also provided added value from an aesthetic point of view, and Hertlein later repeated the design in the Zwietusch-Werk in Charlottenburg, where he reinterpreted a traditional crowstepped gable with a sequence of recessed stories.

1921–23 One of the newly built factories is Graphitierungswerk Meitingen. It is located to the north of Hans Hertlein's hometown of Augsburg.



Rich source of creativity – a view of the construction department in Siemensstadt

Throughout the 1920s, Hertlein became more and more brilliantly adept at translating functionally based requirements into artistically superb buildings. Improving work areas in factories was considered decisive for production quality. In commercial and architectural circles, it had long been understood that architecture, an appropriate workstation design, and ample lighting in factories were essential for promoting the kind of good work that resulted when employees were motivated and identified with the company.

1908 Friedrich Naumann, politician and cofounder of the Werkbund, campaigns for a healthy and performance-enhancing work environment in factories.

The Schaltwerk high-rise building – Europe's first high-rise factory

Hertlein's first major project for Siemens-Schuckertwerke was also his greatest success. In order to concentrate switchgear production in Siemensstadt, it was necessary to expand the existing Schaltwerk facilities. The space next to the two existing hall complexes was too small, which led to an unusual decision: Europe's first high-rise factory, a ten-story structure, would be built between the halls and the main administrative building.

The idea of using the available plot for the construction of a new, monumental high-rise factory originated with Carl Köttgen. He had studied the advanced rationalization of production in the United States and had published his experiences in 1925 in a book titled *Das wirtschaftliche Amerika*. The U.S. had now taken England's traditional place as the "Motherland of Industry" and had become the declared role model for work in Germany.²⁶ Visiting the "land of endless possibilities" was mandatory for entrepreneurs, engineers, and architects. For Köttgen, the high-rise was the obvious building type to embody economic power and the dawning of a new age. He was no doubt familiar with the Larkin Terminal Warehouse in Buffalo, New York – a ten-story industrial high-rise that was built in 1911.

For the development of the detailed functional layout, Hertlein worked with Schaltwerk director Hans Beiersdorf, who was especially concerned with providing quick access to floors and departments via freight elevators. The declared objective of both Köttgen and Beiersdorf was the rationalization of production; as

¹⁹¹¹ The Larkin Terminal Warehouse is designed by the architects Lockwood, Greene & Company for Larkin, the well-known soap manufacturer, in Buffalo, New York.



Rational design idiom – Schaltwerk high-rise building, Europe's first high-rise factory

the architect, Hertlein was responsible for the implementation and impressive embodiment of the program. To make the 175-meter-long production halls flexibly usable, he positioned the stairwells, elevators, and ancillary rooms in adjacent towers that served to articulate the long high-rise slab. External piers on the lower eight stories made it possible to deploy continuous worktables along the windows and minimize expenditures for heating pipes, which could simply be installed along the wall. For the top two stories, which were intended as small offices with reduced room

1929 With the completion of the high-rise building, production of switchgear at the Charlottenburg plant is finally discontinued.

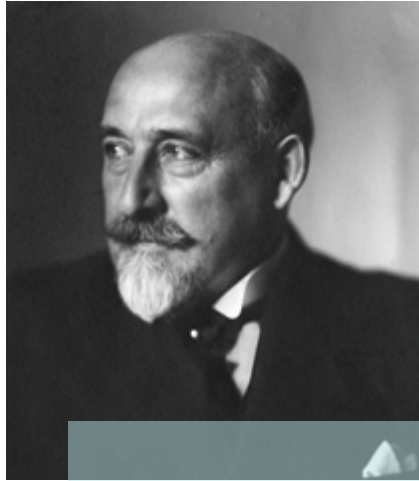
depths, Hertlein again chose stepped floors set back from the main building volume. In this case, the supports were on the inside and provided recesses for heaters. The flat exterior walls terminating the building offered an effective contrast to the ascending piers on the lower stories.

The Schaltwerk high-rise building was an instant sensation, earning the admiration of experts and catapulting Hans Hertlein to the top echelon of architects working in industrial architecture. Seldom had the chairman of a construction department enjoyed such recognition.

The German trade journals weren't the only ones to appreciate the Schaltwerk high-rise building; the design also met with enthusiastic approval abroad. In April 1928, architecture critic Werner



New working environments – work room on the fourth floor of the Schaltwerk high-rise building



The man of ideas – Carl Köttgen, 1925

Hegemann delivered a lecture on new German architecture at the renowned Architectural Association in London and included photos of Hertlein's work. Hegemann was later proud to relate that the anti-German Brits had loudly applauded several buildings but the longest applause was for Hans Hertlein's high-rise factory.²⁷

Carl Köttgen, who took a subordinate role to the architect, was not forgotten. Hertlein dedicated the documentation that was published by Wasmuth-Verlag on the occasion of the building's completion in 1929 to Köttgen, stating that "the idea of a high-rise and the concept underlying the overall plan" were his.²⁸

The relationship between Hertlein and Köttgen was now excellent. Carl Köttgen proved to be an enthusiastic builder who – like an array of board members before and after him – also conducted

1926–27 Carl Köttgen is Chairman of the Association of German Electrical Engineers. Hans Hertlein is commissioned to build the association headquarters in Berlin.

private business with Hans Hertlein. In 1932/33, he collaborated with Hertlein on Köttgen's country house on Griebnitzsee, he invited architect friends to the Schaltwerk high-rise building site, and he tried his hand at developing his own designs. The dispute over Wilhelm Dohme was forgotten. In 1929, Köttgen defended Hertlein against complaints by the Bund Deutscher Architekten (Association of German Architects). The organization complained that too few freelance architects were being hired for the company's construction projects. Köttgen and Hertlein drafted a joint response: The uniqueness of the construction projects demanded "ongoing collaboration with the factory and technical departments involved and, above all, complete uniformity of all the buildings."²⁹ Köttgen had not only internalized the benefits of the "work team" but had also recognized the external advertising and internal community-building value that the "Siemens style" developed by Hertlein had for the company.

On the path to modernism

During this period, the general conditions were ideal for creating ever more expressive and realistic designs. The favorable economic situation allowed Hertlein to pursue a comprehensive range of projects; at the same time, between 1926 and 1933, Berlin was on its way to embracing modernism with its newly appointed municipal building surveyor, Martin Wagner. Hertlein was inspired by the cultural climate in the capital and by Carl Friedrich von Siemens' demand that the buildings be integrated into the prevailing architectural context. He successfully implemented two buildings – the impulse current testing station behind the Schaltwerk high-rise building and, in particular, the heating and power plant at the cable plant built at the same time – whose exposed ironwork

¹⁹²⁴ Owing to the inflation crisis, the German electrical engineering industry recovers, resulting in a positive order situation for Siemens.



The move toward modernism –
Wernerwerk high-rise building

and bands of bricks and windows firmly surrounded the technical facilities. He had finally abandoned the pier façades that he had favored since assuming control of the construction department; with the rise of modernism, they were already seeming overly dramatic.

The move toward modernism was also visible in Hertlein's work on the Wernerwerk high-rise, the gigantic administrative building on Siemensdamm that Siemens & Halske began building in 1928. Referencing design concepts by Martin Wagner, the architect eliminated all expressionistic and traditional elements from his preliminary designs and constructed the administrative building out of sharply outlined cubes in keeping with rationalistic modernism. In accordance with Walter Gropius' concept of "large-scale building blocks" and inspired by a factory design presented

1927 The Siemens & Halske offices accommodated in the factories are to be consolidated in a new building for the purpose of freeing up production space and being able to communicate faster.



On the construction site – Hans Hertlein (fourth from right) surrounded by his colleagues

in 1925 by Ludwig Hilberseimer in his book *Großstadtbauten*, Hertlein composed a monumental building with six, eight, and eleven stories and inserted towers to articulate the complex. The shorter structures matched the height of surrounding buildings while the tallest formed the center of the gigantic complex. The masonry façade composed of red brick effectively emphasized the large volumes of the overall building group. The windows carved into the façade at regular intervals and surrounded by narrow terra cotta frames traced the steel skeleton underlying the massive building as a structural scaffolding.

1925 With his radical urban designs, Ludwig Hilberseimer is part of the same group as Martin Wagner. In 1929, he's appointed to the Bauhaus in Dessau.

At the zenith of his success – Hans Hertlein's heyday

The considerable attention that Hans Hertlein's new architectural direction was attracting at home and abroad gained him honorary memberships in professional associations and institutions. In 1929, the architect was accepted into the Preussische Akademie des Bauwesens (Prussian Academy of Civil Engineering), the following year he was appointed to the Preussische Akademie der Künste (Prussian Academy of Arts), and in 1931 he entered the Association of German Architects and received an honorary doctorate from the Technical University in Hanover. His appointment to the Academy of Arts was suggested by two members of the conservative camp who were in touch with Hertlein: the sculptor Hermann Hosaeus, who Hertlein commissioned several times to make architectural ornaments for Siemens buildings, and the architect and artist Franz Seeck, who had designed the large Siemens family monument in Stahnsdorf.³⁰ The vote on his application for admission into the fine arts section confirmed the reputation that Hertlein was now enjoying among his colleagues. On January 31, 1930, 27 of the 35 academy members present voted in the architect's favor, a percentage that had been exceeded only by Oskar Kokoschka and Alfred Kubin. The following year, when Hertlein's entrance into the Association of German Architects was pending, Werner March, as head of the state association, petitioned the national president of the elite architectural society for a dispensation. March had already accepted Hertlein informally and asked Wilhelm Kreis for the necessary confirmation. The

¹⁹²² The Siemens family monument is built in the Stahnsdorf cemetery based on a design by Franz Seeck. Deserving directors are also buried here.

state association and many members had started a campaign for Hertlein's membership. They wanted to spare the architect the trouble of "completing the requisite questionnaire" and instead inform him of his acceptance by phone.³¹ Kreis responded immediately and mailed Hertlein the signed membership card from Dresden soon thereafter.

All this positive feedback motivated Hertlein to participate in competitions and take on private projects. When he won first prize for an expansion of the Bosch factory in Stuttgart in 1929, the project – which he had not yet mentioned to Carl Friedrich von Siemens – caused some tension.³² In consultation with management, head of finance Max Haller sent Hertlein a reprimand stating that from now on, he wanted to be informed of all independent projects.³³ The company should have known that Hertlein, along with Walter Gropius, Hans Poelzig, Erich Mendelsohn, and other greats of contemporary architecture, had been approached by the American film impresario Samuel "Roxy" Rothafel in 1931 to design "the world's most modern theater" in New York. Carl Friedrich von Siemens personally gave Hertlein permission to assist Zeiss-Werke in Jena in building a separate high-rise and additional plant buildings. "Given the friendly relations between our companies, we're happy to allow master builder Hertlein, who supervises the design and management of our construction projects, to share our experiences with you and to support you in your endeavors."³⁴

"Siemens buildings" in Europe and South America

During the years of reorganization and consolidation following the First World War, Carl Friedrich von Siemens had designed a construction program for Siemens buildings to represent the

¹⁹³⁷ Designs for Zeiss also include a factory building in Kiel designed by Hans Hertlein for Anschütz & Co, a subsidiary of the Carl Zeiss Foundation.



Crossing borders –
Siemens building in Milan

company in Mannheim, The Hague, Hanover, and Nuremberg. Hertlein supplied the designs. With the exception of The Hague, they all resembled the main administrative building in Siemensstadt, which had also recently been enlarged, and the subsidiary at Schöneberger Strasse 3 built in 1914/15 in central Berlin.

For the design of the Siemens buildings built in the late 1920s, Hertlein abandoned the prevailing model of the main administrative building. The new Siemens buildings in Essen (1929/30) and Milan (1938) embodied the new Siemens style.

From 1921 The Siemens buildings serve as representative and administrative offices. Exhibition rooms are accommodated on the ground floor.

The white Siemens building in Buenos Aires stood out from this group of otherwise brick buildings. In July 1929, Hertlein went to visit the site in the Argentinian capital that Compañía Platense de Electricidad, Siemens-Schuckert S.A. had provided as a prime location for the new building. The premises that the company had been leasing in the city had become too small. The new building for around 3,000 employees would also be able to accommodate spacious exhibition rooms that would be accessed via the “Pasaje Siemens,” a passage from Avenida de Mayo to Calle Rivadavia. A new building code in Argentina required that the complex have inner courtyards, which restricted the new building’s floor area. In response to this limitation, Hertlein designed a high-rise whose frontages were topped with recessed stories. A special feature of the design was the tower on Avenida de Mayo, which Hertlein copied from the Torre dell’Orologio in Venice. From this 15th-century Italian clock tower he also adopted the bell on the roof’s edge that was struck by two figures. This type of stylistic citation was unusual for Hertlein and was never repeated. The only clue to his thoughts on the subject are found in a handwritten note regarding one of his lectures: “bell tower/Venice, clock men; incidental and effective advertising; groups of people stood around and watched when the figures struck the bell.”³⁵ He never mentioned it in any of his published works. He knew that his intention would be considered crass in architectural circles. The building should advertise the client and architect through the design alone; architectural opinion makers vehemently condemned content that was aimed directly at this type of advertising effect as cheap gimmickry.

Hertlein travelled to Argentina by ship. Up until the building’s opening in 1931, he followed its progress from Berlin and used the express airmail service to send the plans. Consultations and

¹⁹³¹ In addition to Argentina, the subsidiary in Buenos Aires is also responsible for Siemens projects in Uruguay and Brazil.



Venetian influence –
Siemens building in Buenos Aires

construction-related instructions were handled via telegram. Construction was implemented by Siemens Bauunion, which was founded in 1921 and would be occupying the building along with Siemens-Schuckertwerke. Although Siemens Bauunion specialized in public works, it frequently bid on construction projects for special buildings as well, including the harbor warehouse in Stettin, a parking garage in Berlin, and the public baths in Luckenwalde, and was therefore as familiar with Hertlein's designs as it was with the working and consultation processes of his construction department.

From 1921 The Siemens Bauunion emerges from the Siemens & Halske railway department. In addition to subways, it builds a variety of structures throughout the world, including numerous power plants and dams.

Regress instead of progress – continuity instead of renewal

The Siemens building in Buenos Aires, which was begun before the onset of the global economic depression, was the last building from Hertlein's heyday. The reduction in Siemens' commercial development due to the economic crisis had a direct effect on the company's construction activity, which would be focused on smaller expansions and conversions in the coming years.

When the National Socialists took power, Berlin's inspiring cultural climate soon experienced a chill. Municipal building surveyor Martin Wagner, who had provided Hertlein with a favorable climate in which to develop the new Siemens style, was dismissed in 1933.

Like Carl Friedrich von Siemens, Hans Hertlein distanced himself from the new authorities; he had no thoughts of joining the National Socialist German Workers' Party (Nazi Party). In terms of his artistic work, Hertlein chose "inner emigration." He remained true to himself and to the work he had done up until then, but he lacked innovative power and the support he needed to continue his pursuit of modernism.

Industrial architecture was much less affected by the architectural ideology of the new powers than government and residential buildings, a fact that proved advantageous when it came to maintaining the former Siemens style. Hertlein was able to retain his architectural idiom for factory buildings; through this continuity, he was also able to retain his connection to the glory days of the Weimar Republic. He took a different approach with the

1938 While in exile in Turkey, Martin Wagner works as an urban planning consultant until he is finally hired as a professor at Harvard University in Cambridge, Massachusetts.

company's representative office in Dresden, built in 1937: This Siemens building with its classic motifs conformed to the style of the older offices in Mannheim, Hanover, and Nuremberg. Once again, Hertlein relied on continuity, although it was not so much a standstill as a regression in his design language.

More and more, the work of the construction department was being determined by the preparations for war. In late-1930s Berlin, the factories were once again being expanded. Outside densely built-up Siemensstadt, construction began on the Apparat- und Maschinenwerk in Marienfelde, the Luftfahrtgerätewerk in Spandau, and the Telefunkenwerke in Lichterfelde. Factories that mainly served the armaments industry were designed in collaboration with the Wehrmacht and Reichsluftfahrtministerium. For the new aviation equipment plant built in Berlin-Hakenfelde in 1939, Carl Friedrich von Siemens strongly advised Hertlein to be "particularly frugal and simplistic with this building, especially since we accepted the project from the authorities on trust."³⁶

When Hertlein received a questionnaire from the Reich Minister for Armament and Ammunition in May 1941, the non-affiliated architect responded defensively. Instead of answering the questions about the orders situation and the status of works in progress, Hertlein came straight to the point and wrote purposely slantwise across the lines: "The Siemenswerke Construction Department designs and builds only buildings that are required to fulfill the Wehrmacht's priority program."³⁷ Not only did this spare him further inquiries, but in September 1942 he was awarded the War Merit Cross Second Class for his construction work in support of armaments.³⁸ Almost 80 percent of Wernerwerke turnover now came from transactions with the Wehrmacht.³⁹ The award confirmed once more that Hertlein's "inner emigration" applied only to his artistic work. His field of activity involved him

1946 Architect Rudolf Lodders presents industrial architecture during the Nazi era as a harbor and refuge for modernism.



On the path of inner emigration –
Hans Hertlein, circa 1937

directly in armaments production; industrial architecture offered him absolutely no refuge from politics.

During these difficult times, Hans Hertlein suffered a second blow. The death of Carl Friedrich von Siemens in July 1941 deprived him of his influential protector. Carl Friedrich was succeeded by his nephew Hermann, whose scientific interests had little in common with Hertlein's profession. When Hermann assumed the office of Supervisory Board Chairman, Hertlein was confronted with major reorganizations.

More extensive construction projects were now mainly implemented outside Berlin. Siemensstadt had reached the limits of

1918 Hermann von Siemens studies chemistry and begins his career in the Siemens laboratory.

practical expansion and densification. In addition, the growing risk of airstrikes led to the precautionary construction of smaller “resettlement plants” in more sparsely populated areas. Soon it became necessary to build “alternative plants” to take over production from war-damaged factories. Small home appliances were now manufactured in Hof, switches were produced in Leipa near Wittenberg, and new “Wernerwerke” were built in Arnstadt and Speyer.

While the focus in Siemensstadt was increasingly on safety, repairs, and the rebuilding of destroyed factories, the entire company was gearing itself up for a relocation to southern Germany. The management of Siemens-Schuckertwerke moved first to Hof and then, in the summer of 1945, to Erlangen. The management of Siemens & Halske moved to Munich under the leadership of Ernst von Siemens.

1945 Around 25 percent of the total area of Siemensstadt is destroyed. About 65 percent is damaged.

The attempt to reconnect – a new beginning after the Second World War

By the end of World War II, Hans Hertlein was 63 years old. In the 15 years that passed since his glory days, he had set no new artistic trends. The dictatorship and the war were behind him, his own house in Westend was undamaged, he was still married to his wife, Gertrud, his employment situation was stable, and he was classified as politically unobjectionable.

Large portions of the buildings and plants in Siemensstadt had been destroyed, damaged, or demolished. The company's securities and bank balances had been confiscated by the Red Army, foreign assets had been lost along with subsidiaries and markets, and some of the Siemens patents were freely available.⁴⁰

For Hertlein, the new beginning primarily consisted of reconstruction; once again, he met the economic and political challenges of the postwar era with continuity. He recognized the necessity and the opportunity of creating a bridge to the happier Berlin years with new buildings in southern Germany and at the same time linking the old and new sites. During this reorientation phase, he wanted his buildings to be understood as a point of identification for Siemens employees:

*"The meaning and purpose of the Siemens buildings should not be limited to creating usable buildings that provide the best and most expedient framework for all types of plant operations and are most beneficial to the plant financially, but they should also be visible symbols of the Siemens community."*⁴¹

1949 Despite the relocation of the central offices of Siemens & Halske to Munich and Siemens-Schuckertwerke to Erlangen, Berlin remains the second headquarters of the two parent companies.

Hertlein was looking for a high recognition value that could also effectively promote the corporate identity. In this context, he considered originality to be of secondary importance. He drew on the recognized achievements of his glory days and tried to resume his life's work: "The repetition of certain characteristic features in our buildings seems absolutely justified," he said of his approach, "if for no other reason than the promotional value it will have."⁴²

Hertlein based the administrative building that he began in 1948 in Erlangen on the Wernerwerk high-rise building in Siemensstadt, but the restatement couldn't achieve the power of its predecessor. Employees and inhabitants of Erlangen called it the "Himbeerpalast" (Raspberry Palace), referring to the rendered, red-painted walls.

In contrast to his artistic reversion of the previous decade, Hertlein now added small innovations to his architectural idiom. With the "flying roof" and rounded glass entrance in Erlangen, he enriched his design with several contemporary motifs. For the Wernerwerk für Messtechnik (Wernerwerk for measuring technology) that was built in Karlsruhe in 1950/51, he used shell-like, sawtooth roofs that were compatible with modern times but added no more than a slight accent to the familiar image.

However, the time that Hertlein could devote to the new sites was running out. He was pensioned on March 31, 1951, but not before he managed to negotiate a five-year employment contract that would expire on March 31, 1956.⁴³ Nevertheless, his design idiom had been called into question some time ago. The new start in southern Germany not only had to be anchored in company history but it also had to point the way into the future. The construction departments were now headquartered in Munich and Erlangen, and Hertlein would have to campaign more and more

¹⁹⁵¹ Company management also decides to dismantle the research laboratories of Siemens-Schuckertwerke in Berlin-Siemensstadt and rebuild them in Erlangen.



Two styles – Hans Hertlein's administrative building in Erlangen (left) and Hans Maurer's new building

vigorously if he wanted to maintain his influence on the architectural destiny of Siemens. After a conversation with Carl Knott, head of Erlangen's central administration, in November 1955, he contacted the Berlin headquarters. He wanted to keep his office in Siemensstadt, which had been reduced to two architects and one secretary, and cited his most recent achievements and successes: "Based on a number of examples, I explained how a departure

1950 After the war, Carl Knott is part of the new Siemens management with no close ties to Berlin.

from the style used in Siemensstadt could be avoided through suitable architectural consultations for both larger and smaller projects and how these efforts could even result in an appropriate architectural design.”⁴⁴

However, a “departure from the style used in Siemensstadt” had already become policy. Hertlein’s support within the company was still strong enough that he continued to have a say in design questions and was consulted on construction projects, especially those relating to factories. But after a short grace period at the turn of the year 1956/57, he had to clear out his office.⁴⁵ With the Munich architect Hans Maurer, the company’s architectural policy had a new champion who was better able to orchestrate the new age and new beginning in Western Germany.

In 1954, Maurer won his first urban-planning competition for a new company office on Munich’s Balanstrasse; the next year, he won the competition for the new headquarters on Oskar-von-Miller-Ring. For these projects, he signed a consultancy agreement, but in 1959 he finally signed an employment contract that would bind him to the company for some 40 years.⁴⁶ In 1956, Hertlein voiced his concerns about Maurer’s idea of building a high-rise with a glass façade next to the Raspberry Palace in Erlangen, but to no avail.⁴⁷ Hans Maurer had gained the upper hand and now defined the Siemens appearance, including abroad. Ultimately, the monograph of his works that Maurer published in 1989 would contain a list of close to 100 large and small projects that he had implemented for the company.⁴⁸

Out of apparent respect, the new direction that architectural policy was taking under the leadership of Hermann and Ernst von Siemens was kept in the background during Hans Hertlein’s lifetime. Only after Hertlein’s death did Ernst von Siemens issue a circular highlighting Maurer’s achievements on behalf of the

1947 Hans Maurer graduates from the Munich University of Applied Sciences at the age of 21.

company since 1954. After a decade of cooperation, he officially promoted Maurer to the position that Hertlein had occupied under Carl Friedrich von Siemens:

*"Mr. Maurer has had considerable successes, both in designing our buildings and in maintaining the uniform line that we strive for in all our construction projects. [...] Mr. Maurer will be offering even more recommendations and designs in the future, as well as providing overall artistic management and consulting services relating to the artistic and structural design of our buildings and facilities."*⁴⁹

Professor at the Technical University of Berlin

Like Siemens, the Technical University was also undergoing a fundamental restructuring after the war. The integration of Nazi education and research policy led to critical debates among the Allies regarding the continued existence and future orientation of the tradition-steeped institution.

While these discussions were going on, the university readied itself. In December 1945, Hans Hertlein was offered a deputy professorship that initially included no teaching responsibilities. He was living in Berlin, experienced, well-connected, and politically unobjectionable – all important prerequisites for the anticipated resumption of operation. After Eric Nares, Commandant of the British Sector, reestablished the Technical University on April 9, 1946, Hertlein was officially made a full professor of drafting, structural design, and industrial architecture. He advocated a curriculum that would allow him to pass on his extensive knowledge and practical experiences. The doctoral work of his assistant Fritz Benthin, which he supervised, was proof of the extent to which

¹⁹⁴⁶ Eric Nares inaugurates the Technical University of Berlin as a "new institution with new aims." There are no links to the era before 1945.

the university's students and non-professional teaching staff profited from Hertlein's presence.⁵⁰ In 1951, the university recognized the now 70-year-old architect for having imparted "the entire wealth of his experience to grateful students" and distinguished himself through "extraordinary mental vigor and exuberance."⁵¹ Hellmuth Bickenbach, a full professor of structural engineering and strength of materials, considered his colleague to be a model of skillful mediation between architects and engineers and of interdisciplinary cooperation within the university:

*"Hertlein has greatly nourished the architectural creation of our generation with wisdom derived from the functional tasks of industrial architecture; his constant collaboration with engineers from every branch has not only influenced aesthetic styles but has also served as a prime example of cooperating in a work team."*⁵²

In addition to his teaching duties, Hertlein was committed to rebuilding the war-damaged university buildings, of which he temporarily took charge as chairman of the Urban Planning Committee. He convinced the Senate for Building and Housing to pay for the design services of architecture professors and their assistants who took part in the reconstruction.⁵³

When he retired on March 31, 1953, Hertlein was made an established official and the search for his successor began. In January 1955, it was determined that "no suitable candidates were found among the eligible professors," leaving the way clear for the appointment of Bernhard Hermkes of Hamburg.⁵⁴ That same year, Hermkes submitted a zoning map for Ernst-Reuter-Platz, located on university premises. With his design for the school of architecture, he was also given the opportunity to place an important component on the campus.

¹⁹⁵² The architecture professors and their assistants are responsible for about 80 percent of the reconstruction and conversion of university buildings.

On March 1, 1957, Hertlein was awarded the title of Honorary Senator of the Technical University for his commitment to restarting teaching activities after the war and his efforts toward restoring the university buildings. That same year, he received the Grand Federal Cross of Merit for his complete works. Hans Christoph Hertlein could finally retire with full honors.

1962 Bernhard Hermkes designs the ten-story architecture building with its offset floors and projecting façade panels.

A final review

In 1956, while Siemens was being reoriented by Maurer and the university by Hermkes, Hans Hertlein settled down to write his memoirs. They centered on his activities in Siemensstadt, tracing the arc of his career from its start in Bavaria to his glory days that ended with the death of Carl Friedrich von Siemens. In numerous anecdotes he described his close relationship with the “Head of the House” and his well-functioning network within the company. He included the story of a watchman who wrote a best seller during his shifts in one of the bicycle yards, as well as a number of examples describing the idiosyncrasies of directors and the challenges of collaborative work.⁵⁵ More than just a contemporary historical document, his memoirs were also a way to counteract a growing loss of meaning. He readied his biography for publication and sought a readership within the company.

Evidently, he felt that his story and achievements needed a boost. During the construction of the Schaltwerk high-rise, which was the widely acclaimed high point of his career, he gladly shared the credit with Carl Köttgen. Now, however, he claimed that the design was his alone. After reading the manuscript, Siemens archivist Kurt Busse urged him to reconsider Köttgen’s role in the project: “You worked very closely with him and for him. Couldn’t you say more about him? After all, he was an extremely passionate builder [...]. He must have been intensely involved in and appreciative of the concept and design of such a unique work as the Schaltwerk.”⁵⁶ Hertlein heeded the objection and inserted

1907 On the occasion of the company’s 60th anniversary, the Siemens Archive is born. From 1954 to 1960, it is headed by Kurt Busse.

a passage in which he spoke appreciatively of Köttgen, but in the new version he continued to claim that the high-rise was his idea alone.

This wasn't the only project for which he took full credit, as evidenced by his remarks on Wernerwerk II. He failed to mention that Karl Janisch was the author of the design and he also changed the year that construction began to 1917, after Janisch was gone⁵⁷ – a move that the alert archivist failed to catch before it found its way into the book titled *Die Entwicklung der Siemens-Bauten in Siemensstadt mit Erinnerungen aus der Zeit ihres Entstehens* (The Development of Siemens Buildings in Siemensstadt and Recollections from the Time of Their Creation) that Hertlein self-published at the end of 1959. He sent his work to members of his former network inside the company and anxiously awaited their feedback. When he received no response – as in the case of Margarete and Hermann von Siemens – he made worried inquiries.⁵⁸ Central management in Berlin expressed their appreciation to Hertlein and sent him a brief note of thanks accompanied by the gift of a television set “in tribute.”⁵⁹ Ernst von Siemens, who had an artistic sense, also responded generously but with a clear reference to the company's current architectural design language:

*“Mr. Maurer, whom we have all come to appreciate through many years of collaboration, is now attempting to carry on your truly exemplary work. [...] Let us hope that with today's buildings, we will be able to continue the tradition that you established with my father in a new spirit.”*⁶⁰

The Hertlein era was now irretrievably over. In 1959, Hertlein began working on the sequel to *Erinnerungen aus der Siemensstadt* that was suggested to him by Erlangen Director Carl Knott, but he never finished.

1956–71 As “Head of the House,” Ernst von Siemens consistently strives to reorient the company's architectural representation.

In poor health, Hans Christoph Hertlein died of a heart attack on June 14, 1963, during a stay at a spa on Lake Constance.⁶¹ His ashes are buried in Augsburg, where he spent his youth.

In addition to his numerous buildings, Hertlein has left behind an autobiography and his late lectures in which he reflected on his work experience – in particular, *Sinn und Zweck der Siemens-Bauten* (Meaning and Purpose of Siemens Buildings), the most insightful of the architect's documents, in which he bids farewell to his long professional career and describes his approach, goals, and motives: "More important than these external successes, however, is the fact that our buildings have an inner kinship with what is known as the 'Siemens spirit.' [...] Carl Friedrich was a person of high moral standing who knew no falsehood. He had no tolerance for empty pathos; clarity and authenticity were the essence of his being. Without calling attention to himself, he embodied the dignity of Siemens. We also tried to express this natural dignity in our buildings, and – if we were at all successful – we can hope that we've made our own contribution to the reputation of the Siemens name throughout the world."⁶²

¹⁹⁶³ Hans Hertlein's death is greatly mourned. However, only his immediate family attends his burial in his hometown of Augsburg.

Notes

- 1 Cf. Thorsten Dame: *Elektropolis Berlin*, Petersberg 2014.
- 2 Karl Scheffler: *Die Architektur der Großstadt (1913)*, Berlin 1998, 130.
- 3 Hans Hertlein: *Die Entwicklung der Siemens-Bauten in der Siemensstadt mit Erinnerungen aus der Zeit ihres Entstehens*, Berlin 1959.
- 4 Siemens Historical Institute [hereinafter: SAA WP Her, Hertlein, Hans, Hermann von Siemens to Gertrud Hertlein, July 9, 1963.
- 5 Fritz Schumacher: *Strömungen in Deutscher Baukunst seit 1800*, Leipzig 1935, 168.
- 6 Cf. Günter Kloss: *Hans Erlwein (1872–1914). Stadtbaurat in Bamberg und Dresden*, Petersberg 2002, 38–39.
- 7 Hertlein, *Entwicklung der Siemens-Bauten*, 11.
- 8 SAA WP Her, Friedrich Hertlein to Carl Friedrich von Siemens, August 22, 1912.
- 9 Hertlein, *Entwicklung der Siemens-Bauten*, 10.
- 10 Ibid., 12.
- 11 Ibid., 11.
- 12 SAA WP Her, Hans Hertlein to Carl Friedrich von Siemens, July 22, 1912.
- 13 Hertlein, *Entwicklung der Siemens-Bauten*, 17.
- 14 SAA 4.Lf 542, Laufender Schriftwechsel der Bauabteilung, 1921–1947, Corporate circular no. 74, July 20, 1933, Construction Department.
- 15 Hertlein, *Entwicklung der Siemens-Bauten*, 29. Cf. Frank Wittendorfer: Karl Janisch; in: *Baumeister – Ingenieure – Gartenarchitekten*, ed. Jessica Hänsel et al., Berlin 2016, 478–79.
- 16 Hertlein, *Entwicklung der Siemens-Bauten*, 1. Hans Hertlein: Die neuen Bauten des Siemenskonzerns, *Siemens-Jahrbuch* 1927, 455.
- 17 SAA 4.Lf 641, private papers of Carl Friedrich von Siemens, Beirat für Städtebau und Wohnungswesen, 1916–1924, Heinrich Brauns to Carl Friedrich von Siemens, April 8, 1921.
- 18 Cf. Hertlein, *Entwicklung der Siemens-Bauten*, 85.
- 19 Ibid., 29.
- 20 SAA 11.Ld 666, Max Haller to Hans Hertlein, March 12, 1923, Hans Hertlein to Max Haller, January 7, 1927. SAA 4.Lf 542, Ludwig von Winterfeld to Hans Hertlein, August 18, 1932, note of February 10, 1939.
- 21 Hertlein, *Entwicklung der Siemens-Bauten*, 29.
- 22 Ibid., 61–62.
- 23 Cf. Wilhelm Dohme: *Kraftwerks-Hochbauten. Siemens-Schuckert*, Berlin 1924.
- 24 SAA 11.Lf 93 and 94, Köttgen's private papers, Schriftwechsel betr. Bauabteilung 1925–1929, Carl Friedrich von Siemens to Carl Köttgen, May 26, 1925.
- 25 SAA 11.Ld 666, Max Haller to Hans Hertlein: Beschäftigte in der Bauabteilung, July 26, 1928.
- 26 Walter Gropius: Die Entwicklung moderner Industriebaukunst, in: *Jahrbuch des Deutschen Werkbundes*, Jena 1913, 21.
- 27 Cf. Werner Hegemann: Bonatz, Hertlein, Schumacher in London, *Wasmuths Monatshefte für Baukunst*, 6, 1928, 246.
- 28 Cf. Hans Hertlein: *Das Schaltwerk-Hochhaus in Siemensstadt: Architektur und bautechnische Einrichtungen*, Berlin 1929, 7. SAA 11.Lf 93 and 94, Hans Hertlein to Carl Köttgen, July 19, 1929.
- 29 SAA 11.Lf 93 and 94, Carl Köttgen an die Hauptverwaltung des Bund Deutscher Architekten, June 19, 1929.
- 30 Archive of the Akademie der Künste, Bestand Preussische Akademie der Künste, Akte 1098, 109, 115, Franz Seeck und Hermann Hosaeus an die

- Preußische Akademie der Künste, January 14/15, 1930.
- 31 Hertlein, private papers, Landesarchiv Berlin, A Rep. 243-04 – 3383, Werner March to Wilhelm Kreis, May 9, 1931.
 - 32 Cf. Hans Josef Zechlin: Neubauten der Boshwerke in Stuttgart. Architekt Hans Hertlein, Berlin, *Wasmuths Monatshefte für Baukunst*, 8, 1929, 350–51.
 - 33 SAA 11.Ld 666, Max Haller to Hans Hertlein, January 22, 1929.
 - 34 SAA 4.Lf 542, Carl Friedrich von Siemens, draft of a letter to Carl Zeiss, March 22, 1934.
 - 35 SAA 11.57 Lm 374, Hertlein's estate, Hans Hertlein: *Sinn und Zweck der Siemens-Bauten*, Vortragsmanuskript, 1952, 15.
 - 36 SAA 4.Lf 542, Aktennotiz über eine Besprechung, October 11, 1939.
 - 37 Landesarchiv Berlin, A Rep. 243-04 – 3383, Hans Hertlein in: Fragebogen des Reichsministers für Munition und Bewaffnung, May 29, 1941.
 - 38 SAA WP Her, Hertlein, Hans.
 - 39 Cf. Wilfried Feldenkirchen: *Siemens. Von der Werkstatt zum Weltunternehmen*, Munich, Zurich 2003, 172.
 - 40 Ibid., 255–256.
 - 41 SAA 11.57 Lm 374, Hertlein, *Sinn und Zweck der Siemens-Bauten*, 17–18.
 - 42 Ibid., 15.
 - 43 SAA WP Her, Hans Hertlein, private papers.
 - 44 SAA 11.57 Lm 374, Hans Hertlein: Aktennotiz betr. Architekturbüro Prof. Dr. Hertlein in Berlin-Siemensstadt, November 23, 1955.
 - 45 SAA 11.57 Lm 374, Hans Hertlein to Walter Mohr, January 11, 1957.
 - 46 Cf. Hans Maurer: *Bauten + Projekte*, 1947 bis heute, Stuttgart, Zürich 1989, 7, 196. SAA WP Mat, Maurer, Hans, Ernst von Siemens: betrifft: Herrn Architekt Hans Maurer, October 15, 1963.
 - 47 11.57 Lm 374, Hans Hertlein to Director Lehmann, May 9, 1956.
 - 48 Cf. Maurer: *Bauten + Projekte*, 171–195.
 - 49 SAA WP Mat, Ernst von Siemens: betrifft: Herrn Architekt Hans Maurer, October 15, 1963.
 - 50 Cf. Fritz Benthin: *Beitrag zur Entwicklungsgeschichte des Industriebaues unter besonderer Berücksichtigung der Verhältnisse im Berliner Raum*, Dissertationsschrift an der Technischen Universität Berlin, 1954.
 - 51 Universitätsarchiv der Technischen Universität Berlin in der Universitätsbibliothek, BGS, Eintrag Hertlein, Manuskript Professor Hertlein – siebzig Jahre alt.
 - 52 Hellmuth Bickenbach: Hans Hertlein 70 Jahre, *Die Bautechnik*, 7, 1951, 164.
 - 53 Universitätsarchiv der Technischen Universität Berlin in der Universitätsbibliothek, 206-40, L, 52, 2, Hans Hertlein to Hauptamtsleiter Riedel, December 20, 1952.
 - 54 Universitätsarchiv der Technischen Universität Berlin in der Universitätsbibliothek, 109-1, 147, Ernst Heinrich to Senator für Volksbildung, January 20, 1955.
 - 55 Cf. Hertlein, *Entwicklung der Siemens-Bauten*, 62–63; 36–37.
 - 56 SAA 11.57 Lm 373, Kurt Busse to Hans Hertlein, May 6, 1957.
 - 57 Cf. Hertlein, *Entwicklung der Siemens-Bauten*, 33.
 - 58 SAA 11.57 Lm 373, Hans Hertlein to Kurt Busse, November 25, 1959.
 - 59 SAA 11.57 Lm 373, Zentrale Berliner Leitung to Hans Hertlein, December 1, 1959.
 - 60 SAA 11.57 Lm 373, Ernst von Siemens to Hans Hertlein, August 10, 1959.
 - 61 Universitätsarchiv der Technischen Universität Berlin in der Universitätsbibliothek, BGS, Eintrag Hertlein, Gertrud Hertlein, obituary.
 - 62 SAA 11.57 Lm 374, Hertlein, *Sinn und Zweck der Siemens-Bauten*, 17–18.

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